WHAT IS CLAIMED IS:

1   1. A system for remotely configuring storage space, the system
2   comprising:
3   a plurality of storage devices, the plurality of storage devices having
4   storage space comprising free storage space and allocated storage space, wherein the
5   allocated storage space has a size and is to be allocated to a user for storing data
6   from the user, the user to be located at a site remote from the plurality of storage
7   devices; and
8   a controller to be provided in communication with the plurality of
9   storage devices and the remote user for automatically transferring a portion of the
10   free storage space to the allocated storage space in response to a request by the
11   remote user to increase the size of the allocated storage space.

1   2. The system of claim 1 wherein the controller comprises a
2   computer program.

1   3. The system of claim 1 wherein the controller comprises a
2   processor.

1   4. The system of claim 1 wherein the request by the remote user is
2   to the controller.

1   5. The system of claim 2 wherein the computer program is to be
2   provided on a server located at a site remote from the user, and wherein the plurality
3   of storage devices are located at the server site.

1   6. The system of claim 1 further comprising a storage device
2   manager to be provided in communication with the remote user and the plurality of
3   storage devices, wherein the storage device manager presents a plurality of virtual
4   storage volumes to the remote user for use in storage and retrieval of the user data,
5   and the plurality of virtual storage volumes are mapped to the allocated storage
6   space of the plurality of storage devices.

1   7. The system of claim 1 wherein the plurality of storage devices are

2   part of a storage network.

1   8. The system of claim 1 wherein the plurality of storage devices

2   comprises a plurality of disk storage devices.

1   9. The system of claim 1 wherein the controller is further for

2   automatically transferring a portion of the allocated storage space to the free storage

3   space in response to a request by the remote user to decrease the size of the allocated

4   storage space.

1   10. The system of claim 9 wherein the request by the remote user is

2   to the controller.

1   11. A method for remotely configuring storage space, the method

2   comprising:

3   providing a plurality of storage devices, the plurality of storage

4   devices having storage space comprising free storage space and allocated storage

5   space, wherein the allocated storage space has a size and is to be allocated to a user

6   for storing data from the user, the user to be located at a site remote from the

7   plurality of storage devices; and

8   providing a controller to be provided in communication with the

9   plurality of storage devices and the remote user for automatically transferring a

10   portion of the free storage space to the allocated storage space in response to a

11   request by the remote user to increase the size of the allocated storage space.

1   12. The method of claim 11 wherein the controller comprises a

2   computer program.

1   13. The method of claim 11 wherein the controller comprises a

2   processor.

1   14. The method of claim 11 wherein the request by the remote user
2   is to the controller.

1   15. The method of claim 12 wherein the computer program is to be
2   provided on a server located at a site remote from the user, and wherein the plurality
3   of storage devices are located at the server site.

1   16. The method of claim 11 further comprising providing a storage
2   device manager to be provided in communication with the remote user and the
3   plurality of storage devices, wherein the storage device manager presents a plurality
4   of virtual storage volumes to the remote user for use in storage and retrieval of the
5   user data, and the plurality of virtual storage volumes are mapped to the allocated
6   storage space of the plurality of storage devices.

1   17. The method of claim 11 wherein the plurality of storage devices
2   are part of a storage network.

1   18. The method of claim 11 wherein the plurality of storage devices
2   comprises a plurality of disk storage devices.

1   19. The method of claim 11 wherein the controller is further for
2   automatically transferring a portion of the allocated storage space to the free storage
3   space in response to a request by the remote user to decrease the size of the allocated
4   storage space.

1   20. The method of claim 19 wherein the request by the remote user
2   is to the controller.

1   21. A method for remotely configuring storage space in a system
2   having a plurality of storage devices, the plurality of storage devices having storage
3   space comprising free storage space and allocated storage space, wherein the
4   allocated storage space has a size and is to be allocated to a user for storing data

5   from the user, the user to be located at a site remote from the plurality of storage

6   devices, the method comprising:

7   providing a controller to be provided in communication with the

8   plurality of storage devices and the remote user for automatically transferring a

9   portion of the free storage space to the allocated storage space in response to a

10   request by the remote user to increase the size of the allocated storage space.

1   22. The method of claim 21 wherein the controller comprises a

2   computer program.

1   23. The method of claim 21 wherein the controller comprises a

2   processor.

1   24. The method of claim 21 wherein the request by the remote user

2   is to the controller.

1   25. The method of claim 22 wherein the computer program is to be

2   provided on a server located at a site remote from the user, and wherein the plurality

3   of storage devices are located at the server site.

1   26. The method of claim 21 further comprising providing a storage

2   device manager to be provided in communication with the remote user and the

3   plurality of storage devices, wherein the storage device manager presents a plurality

4   of virtual storage volumes to the remote user for use in storage and retrieval of the

5   user data, and the plurality of virtual storage volumes are mapped to the allocated

6   storage space of the plurality of storage devices.

1   27. The method of claim 21 wherein the plurality of storage devices

2   are part of a storage network.

1   28. The method of claim 21 wherein the plurality of storage devices

2   comprises a plurality of disk storage devices.

1   29. The method of claim 21 wherein the controller is further for
2 automatically transferring a portion of the allocated storage space to the free storage
3 space in response to a request by the remote user to decrease the size of the allocated
4 storage space.

1   30. The method of claim 29 wherein the request by the remote user
2 is to the controller.

1   31. In a storage system having a plurality of storage devices, the
2 plurality of storage devices having storage space comprising free storage space and
3 allocated storage space, the allocated storage space having a size and being allocated
4 to a remote user for storing data from the user, a method for configuring storage
5 space, comprising:
6   automatically receiving a request from the user to increase the size
7 of the allocated storage space; and
8   automatically transferring a portion of the free storage space to the
9 allocated storage space in response to the request by the user to increase the size of
10 the allocated storage space.

1   32. The method of claim 31 wherein the storage system also includes
2 a controller for use in automatically transferring a portion of the free storage space
3 to the allocated storage space.

1   33. The method of claim 32 wherein the controller is also for use in
2 receiving the request by the user to increase the size of the allocated storage space.

1   34. The method of claim 31 wherein the storage system also includes
2 a storage device manager in communication with the user and the plurality of
3 storage devices, wherein the storage device manager presents a plurality of virtual
4 storage volumes to the user for use in storage and retrieval of the user data, and the
5 plurality of virtual storage volumes are mapped to the allocated storage space of the
6 plurality of storage devices.

1   35. The method of claim 31 wherein the plurality of storage devices

2   are part of a storage network.

1   36. In a storage system having a plurality of storage devices, the

2   plurality of storage devices having storage space comprising free storage space and

3   allocated storage space, the allocated storage space having a size and being allocated

4   to a remote user for storing data from the user, a method for configuring storage

5   space, comprising:

6   automatically receiving a request from the user to decrease the size

7   of the allocated storage space; and

8   automatically transferring a portion of the allocated storage space to

9   the free storage space in response to the request by the user to decrease the size of

10   the allocated storage space.

1   37. The method of claim 36 wherein the storage system also includes

2   a controller for use in automatically transferring a portion of the free storage space

3   to the allocated storage space.

1   38. The method of claim 37 wherein the controller is also for use in

2   receiving the request by the user to increase the size of the allocated storage space.

1   39. The method of claim 36 wherein the storage system also includes

2   a storage device manager in communication with the user and the plurality of

3   storage devices, wherein the storage device manager presents a plurality of virtual

4   storage volumes to the user for use in storage and retrieval of the user data, and the

5   plurality of virtual storage volumes are mapped to the allocated storage space of the

6   plurality of storage devices.

1   40. The method of claim 36 wherein the plurality of storage devices

2   are part of a storage network.